

30th Space Wing



Safety Board Member Training

30 SW/SEF

Integrity - Service - Excellence



Purpose Of This Training



To familiarize you with your duties as an Interim Safety Board or Safety Investigation Board member



Why Investigate?



- **It is simple...Safety investigations and reports are conducted and written solely to prevent future mishaps**



When To Investigate?



- **Mishap Boards Are Based On Mishap Class**
 - **This is determined before Board is Convened**
- **When are boards convened?**
 - **For All Class A Mishaps**
 - **For Some Class B Mishaps**
 - **If Commander Directs**



SIBs vs. AIBs



- **They are both the same, right?**
 - **WRONG!!**
- **The Accident Investigation Board (AIB) is:**
 - **A legal investigation**
 - **Provides a publicly releasable report of the facts and circumstances surrounding a mishap**
 - **An AIB gathers and preserves evidence for claims, litigation, disciplinary and adverse action**
 - **Assigns “liability” or legal blame**
- **A Safety Investigation Board (SIB) is**
 - **Conducted to prevent future mishaps.**
 - **A SIB is not punitive in any way.**
 - **Ensures commanders quickly obtain accurate mishap information**
 - **A tool that promotes safety, combat readiness and mission accomplishment**



SIBs vs. AIBs



- **Both are vital, however.....**
- **SIB has priority**
- **Accident investigators must interview witnesses, obtain and analyze evidence and inspect the scene of the accident *after* the SIB.**
- **Accident investigation may begin before the safety investigation is complete, but must not interfere with the SIB**
 - **SIB releases wreckage to Accident Investigation**
 - **SIB releases witnesses**
 - **SIB provides part I of safety report**



Two Types of Safety Boards



- **Temporary Board**
- **Interim Safety Board (ISB)**
 - **Preserve Evidence**
 - **Tox Testing**
 - **Site Photography**
 - **Fluid Samples**
 - **Witness Statements**
 - **Record Collection**
- **Formal Board**
- **Safety Investigation Board (SIB)**
 - **Investigate Mishap**
 - **Develops:**
 - **Findings**
 - **Causes**
 - **Recommendations**
 - **Issues formal report**
 - **Briefs convening authority**

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Mishap Categories and Classes





Mishap Categories



- **Nuclear**
- **Space**
- **Aviation**
- **Guided Missile**
- **Explosives and Chemical Agents**
- **Directed Energy**
- **Afloat**
- **Motor Vehicle**
- **Off-Duty Military**
- **Ground and Industrial**



Mishap Classes



CLASS A MISHAP: A mishap resulting in one or more of the following:

- **Direct mishap cost totaling \$1,000,000 or more**
- **A fatality or permanent total disability**
- **Destruction of a DoD aircraft.**
 - **NOTE: A destroyed UAV is not a Class A mishap unless at least one of the two qualifiers above apply**



Mishap Classes



CLASS B MISHAP: A mishap resulting in one or more of the following:

- **Direct mishap cost totaling \$200,000 or more but less than \$1,000,000**
- **A permanent partial disability**
- **Inpatient hospitalization of three or more personnel. Do not count or include individuals hospitalized for observation, diagnostic, or administrative purposes that were treated and released.**



Mishap Classes



CLASS C MISHAP: A mishap resulting in one or more of the following:

- **Direct mishap cost totaling \$20,000 or more but less than \$200,000**
- **An injury resulting in any loss of time from work beyond the day or shift on which it occurred; or occupational illness that causes loss of time from work at any time**
- **An occupational injury or illness resulting in permanent change of job**



Bang - Boom - Investigation



- Fire -- Medical -- OSC -- ISB
- Preserve Life/Minimize Injuries
- Preserve Resources
- Minimize Collateral Damage
- Preserve Evidence



When the fire is out...the investigation begins

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The Safety Investigation Board



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Primary Board Members



- **President**
- **AFSC Representative**
- **Investigating Officer**
- **Medical Member**
- **Maintenance Member**
- **Pilot / Ops Member**
- **Recorder (non-voting)**

- **Note that AFI 91-204 deliberately avoids prescribing a specific list of mandatory members or member qualifications for ISBs...just for SIBs**



Board President



■ **Qualifications**

- **Colonel or Higher**
 - **O-7 if Fatality**
- **Rated (P or N)**
- **From Outside Mishap Wing**
- **Graduate of Board President Course**

■ **Responsibilities**

- **Conduct of the Board**
- **Formal Report**
- **Reviews/Releases all reports**
- **Handles/Approves all media requests**
 - **The final point of release for all information (including electronic/digital media, photographs, etc.) from the investigation**
- **MAJCOM/CC Briefing**
- **“Feces filter”**

51% of the VOTE



Safety Center Representative



- **Qualifications**

- **Assigned to AFSC**
- **Experience in major weapon system group**

- **Responsibilities**

- **Safety expert**
- **Coordinate outside expertise**
- **Report writing expert**

**USUALLY WILL HAVE AN AFSC REP FOR
CLASS Bs AND ABOVE**



Investigating Officer



■ **Qualifications**

- Graduate of FSO/AMIC
- Rated (Flight), Operator/Maintainer (All Other)
- Current or previous qualification in mishap aircraft (desired)

■ **Responsibilities**

- Coordinates daily activities
- Coordinates logistics issues
 - Transportation
 - PQDR's
 - Wreckage removal
- Conducts Interviews
- Investigation Expert



Pilot / Ops Member



■ **Qualifications**

- **Flight - Current/
Qualification In Mishap
Aircraft (IP Preferred)**
- **Others - Qualified Operator**

■ **Responsibilities**

- **Analyzes All Operations
Factors**
 - **Weather**
 - **ATC**
 - **Training Records**
 - **Proficiency**
 - **Communications**
 - **Crew actions**
 - **Anything else of value**
- **Secures all ops related
records**
- **Reconstructs sequence of
events**
- **Conducts interviews**

I n t e g r i t y - S e r v i c e - E x c e l l e n c e



Medical Member



■ **Qualifications**

- **Flight - Flight Surgeon**
- **Flown in similar type aircraft (Desired)**
- **Can Substitute Material Officer For Space/ Missile (When No Human Factors Involved)**

■ **Responsibilities**

- **Human Expert**
- **Human Factors investigation**
- **Tox testing**
- **Other lab tests**
- **Secures All Medical Records**
- **Evaluates medical histories, records, laboratory, radiological, and pathology reports**
- **Determines cause(s) of injuries or death**



Maintenance Member



■ **Qualifications**

- **Fully Qualified Maintenance Officer or Senior NCO**
- **AFSPC may use QAE's**
- **2 years mx experience in mishap aircraft**
- **Desired: AMIC Graduate (officers)**
- **Desired: AETC JEMIC (officer/enlisted)**

■ **Responsibilities**

- **Reviews and investigates all maintenance-related matters**
- **Airframe Expert**
- **Reconstructs Mishap Aircraft**
- **Determines need for DR's, etc.**



Recorder



■ Qualifications

- Host base administrator
- Board day-to-day activities coordinator

■ Responsibilities

- Setup board room
- Make arrangements for permanent board
- Implement Post-Mishap Board Plan
- Establish secretary pool
- Prepare message reports
- Assemble Formal Report
- **Must** quickly establish filing system and ensure its maintenance



Other Members



- **Voting (if BP determines the area of expertise to be a factor, otherwise non-voting)**

- **ATC**
- **Weather**
- **Weapons**
- **Life Support**
- **Nuclear**
- **AFOTEC (if OT&E involved)**
- **Jumpmaster**
- **Other service representatives**
- **Crash Fire Rescue Specialist**

- **Non-Voting**

- **Manufacturers Rep**
- **FAA/NTSB**
- **Technical Experts**
- **Human Factors Experts**
- **Commander's Rep**
- **Additional crewmembers**



Findings vs Causes



■ **Findings**

- **Chronological sequence**
- **Clear statements of single events/Stand alone**
- **Sustain the mishap sequence**
- **Based on evidence, Judgment and Common Sense**

■ **Causes**

- **Causes are Findings which if eliminated would have prevented the mishap.**
- **AF uses multiple cause theory**
 - **Usually not a “Smoking Gun”**
- **Use Reasonable-Person Criteria**



Recommendations



- **Actions which will prevent similar mishaps**
 - **Must be Feasible**
 - **Related to a cause or finding**
 - **But Not Required for Every Cause**
- **Make Sure Recommendations Pass the Common Sense Test**

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The ISB



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The ISB



- **Convened by individual wing commanders**
- **Provide an organized, evidence preservation-oriented response to major mishaps in preparation for the arrival of the SIB**
- **ISBs do NOT “solve” mishaps, just gather data**
- **Just the facts...do not offer any theories, conjecture, or conclusions you have developed as you hand off the materials and information you have assembled unless specifically asked.**
- **Hand all information collected (to include copies) to the SIB - YOU WILL NOT KEEP ANYTHING FOR YOURSELF!**
- **Checklists and guides located in ISB “go” kits in FSO truck**



- **AFPAM 91-211, Attach 3, Section A3C: Interim Safety Board Member Objectives and Procedures**
- **AFI 91-22X: Your specific discipline's guide to investigations and reports**
 - **221- Weapons**
 - **222- Space**
 - **223- Aviation**
 - **224- Ground**
- **Both supplement AFI 91-204 on your specific investigation by giving more discipline-specific information**
- **Recommend getting a copy of both and reviewing prior to an incident**



ISB President



- **Do not try to combine the duties of On-Scene Commander (OSC) and ISB President into a single individual**
- **The manager of those actions necessary to gather and preserve evidence, much of which is not at the crash scene**
- **Stay abreast of travel plans of SIB members, especially the SIB president.**
- **Ensure workplace and billeting arrangements are in place for all expected out-of-town board members.**
- **Prepare a “handoff briefing” containing information addressed in AFPAM 91-211, Attach 3, para A3.11.3.3.**



On Scene Commander



- **The fire chief or senior on-duty fire fighter is in command of the mishap scene until the fire is extinguished and rescue efforts are completed**
- **STOPS after rescue efforts complete and fire's out**
- **Responsibility for the mishap site always resides with the On-Scene Commander from the time of the mishap until all restoration actions are complete**
- **OSC allows ISB on scene after site is SAFE and supports ISB/SIB efforts**

**Bottom Line: OSC owns the site, SIB
President owns the wreckage**



Moving Wreckage



- **The safety investigation board has inherent priorities over other activities and investigations connected to the mishap**
- **Includes right to impound Air Force property involved in the mishap.**
- **SW/CC, in conjunction with SIB president, may choose to move wreckage interfering with essential mission activities or causing a hazard at the mishap scene.**
- **If wreckage must be moved, thoroughly document the scene (photographs/video) prior to moving anything.**



Witness Interviews



- **Ground rules**
 - **Privileged or not privileged**
 - **Not sworn**
- **Types of witnesses**
 - **Participant**
 - **Observer**
 - **Expert**
- **Value of testimony**
 - **Perishable - details fade with time**
 - **Relative value by type of witness**
 - **Participants first priority, observers next**



Witness Interviews



- **Field Interview**

- **Conduct As Early as Possible**
- **Recording is better than taking notes**
 - **Microphones eliminates most background noise**
- **Have Security Forces, PA, or ATC assist you in locating witnesses**
 - **If they have to leave before you can interview them, get names, addresses, telephone numbers**

- **Board Interview**

- **Best for critical witnesses**
- **Not an interrogation**
 - **Put the witness at ease**



Witness Interviews



- **Do not:**
 - **Administer truth serums or other drugs**
 - **If a witness provides a statement while under medication, add a notation to their statement.**
 - **Use hypnotic techniques**
 - **Polygraph tests**
 - **Administer an oath**
- **If a witness refuses to testify—even after offering safety privilege—contact AFSC/JA**



Witness Interviews



- **Criminal misconduct**
 - **If you suspect criminal misconduct, stop the interview and report this fact to the convening authority**
 - **The convening authority (with the assistance of HQ AFSC/JA) will determine whether or not the investigation will continue**
- **For commercial or spacelift mishap: Refrain from interviewing witnesses until the FAA/NTSB representative has arrived, unless there is a compelling reason to take the witness' statement(s) immediately.**



ISB Do's and Don'ts



- **Don't Rely on Memory**
 - **Don't Go Flipping/Moving Parts About**
 - aka "Kicking Tin"
 - **Don't Move Things Without Photographing**
 - **Don't Jump To Conclusions**
 - **Don't Dismantle Components without Marking**
 - **Don't Look to Place Blame**
 - **Don't Look for Only One Cause**
 - **Don't Discuss Matters With Outside**
 - **DO Talk With Witnesses ASAP**
 - **DO Visit The Scene for First Hand Info**
 - **DO Remember, This is Your Full Time Job Until the Investigation is Complete**
- DOCUMENT, DOCUMENT, DOCUMENT!**

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Safety Privilege

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Privilege



- **Exempt by law from disclosure/No FOIA**
- **“Limited-use” = Within AF Safety**
- **Avoids High Legal Standard**
- **Allows quick action for preventing mishaps**



Safety Privilege



What Is Protected?

- **Witness Testimony (Confidentiality)**
- **Contractor Information**
- **Board Analysis**
- **Findings, Causes, Recommendations**
- **Simulations, Video Re-enactments**
 - **Anything “staged” by the investigators**
- **Life sciences reports**



Offering Confidentiality



- **President**
 - **Usually extended to Board Members**
- **Investigating Officers (Single Investigator)**
- **Only AFI 91-204 investigations**
- **Do not offer confidentiality on a blanket basis. The decision should be based upon:**
 - **A witness or contractor's reluctance to cooperate**
 - **Involvement in the mishap sequence**
 - **Apparent self-interest in not disclosing information.**
- **If offered confidentiality, DoD members **MUST** testify unless invoking 5th Amendment rights**
- **If a witness lies under a promise of confidentiality, all of that witnesses testimony loses safety privilege**



Offering Confidentiality



- **When are you authorized to offer a promise of confidentiality?**
 - **Authorized on only the following investigations:**
 - **Nuclear**
 - **Space**
 - **Aviation**
 - **Guided missile**
 - **Directed energy**
 - **MAY be used on complex systems, military-unique items, or military -unique operations or exercises, where a witness or involved contractor will not provide a statement of information without a promise of confidentiality**
- **Who can have it?**
 - **Any witness or contractor who built, designed or maintained the equipment in order to encourage full cooperation**



Limits On Confidentiality



- **NOT AUTHORIZED for the following mishaps:**
 - **Explosive and chemical agents**
 - **Afloat**
 - **Motor Vehicle**
 - **Off-duty Military**
 - **Ground and industrial**
 - **HATRs**



Safety Privilege



Access to Information

- **Commanders with mishap prevention responsibilities**
- **Safety Officers**
- **Flight Surgeons**
- **Flight and Missile Crews**
- **Only within respective weapons system**



Safety Privilege



Protection

- **Critical to future of benefits**
 - **If we don't show good faith, courts won't honor**
- **DO NOT Discuss Safety Information outside Safety channels (need to know)**
- **Control distribution of Safety Messages**

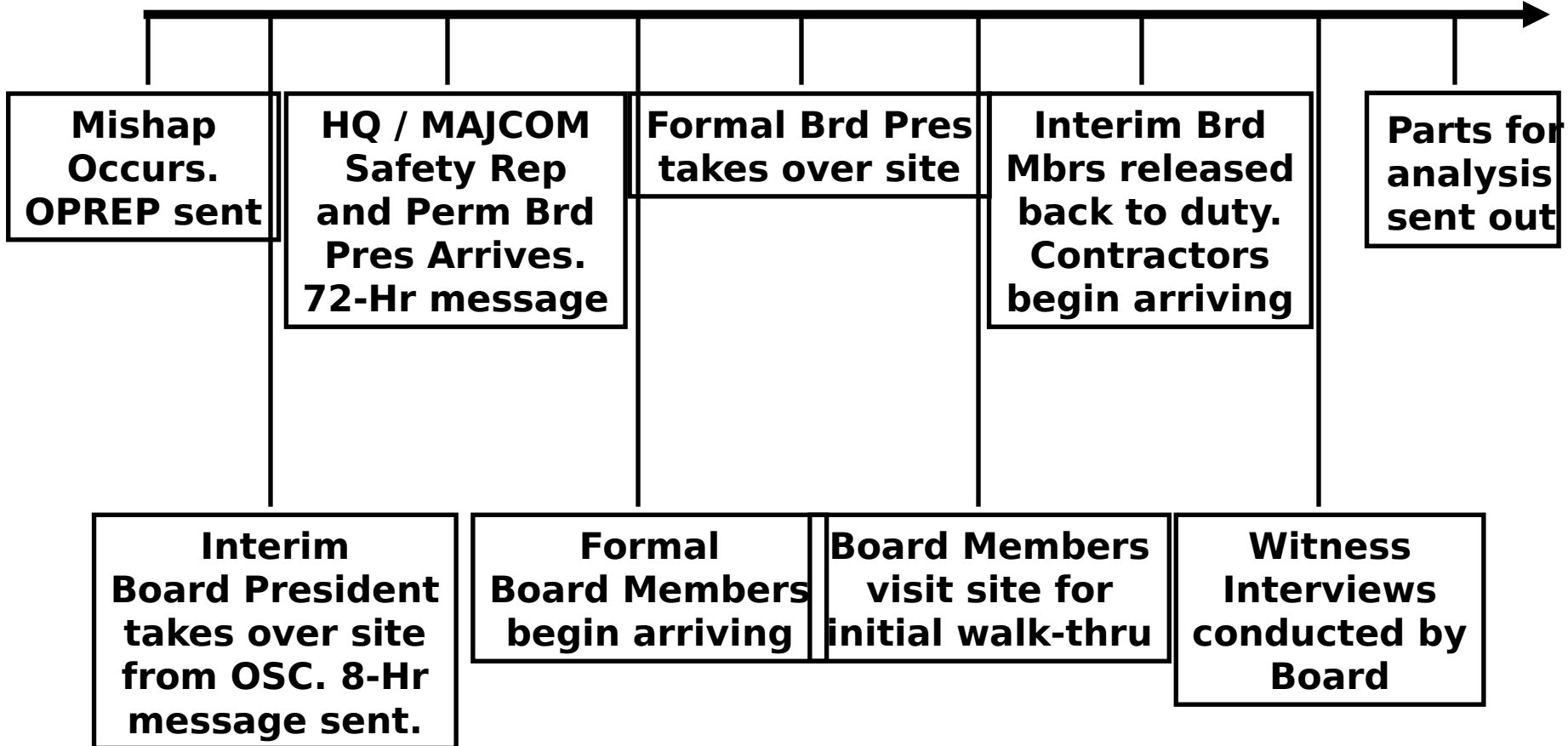


ISB/SIB Timeline



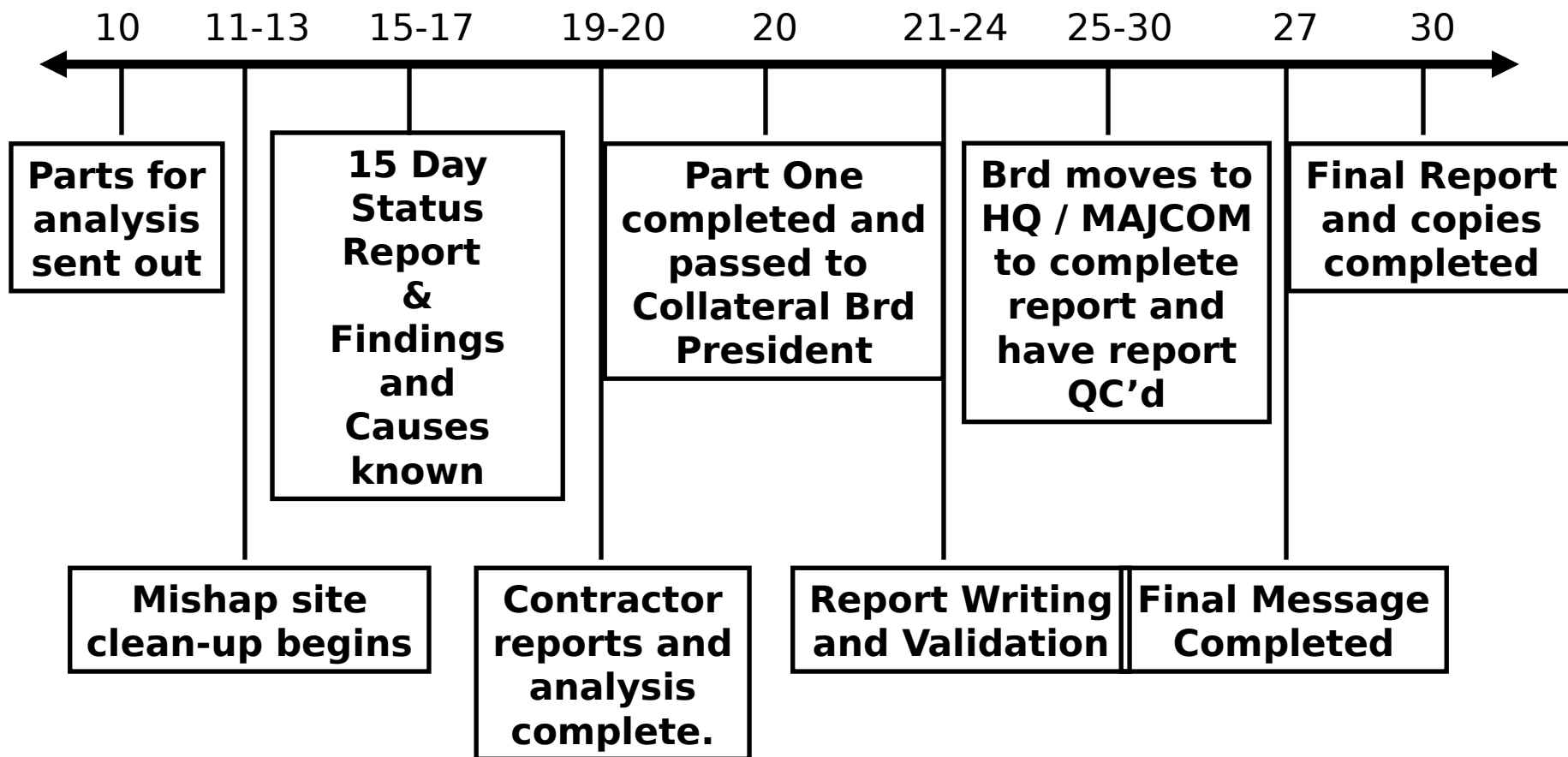
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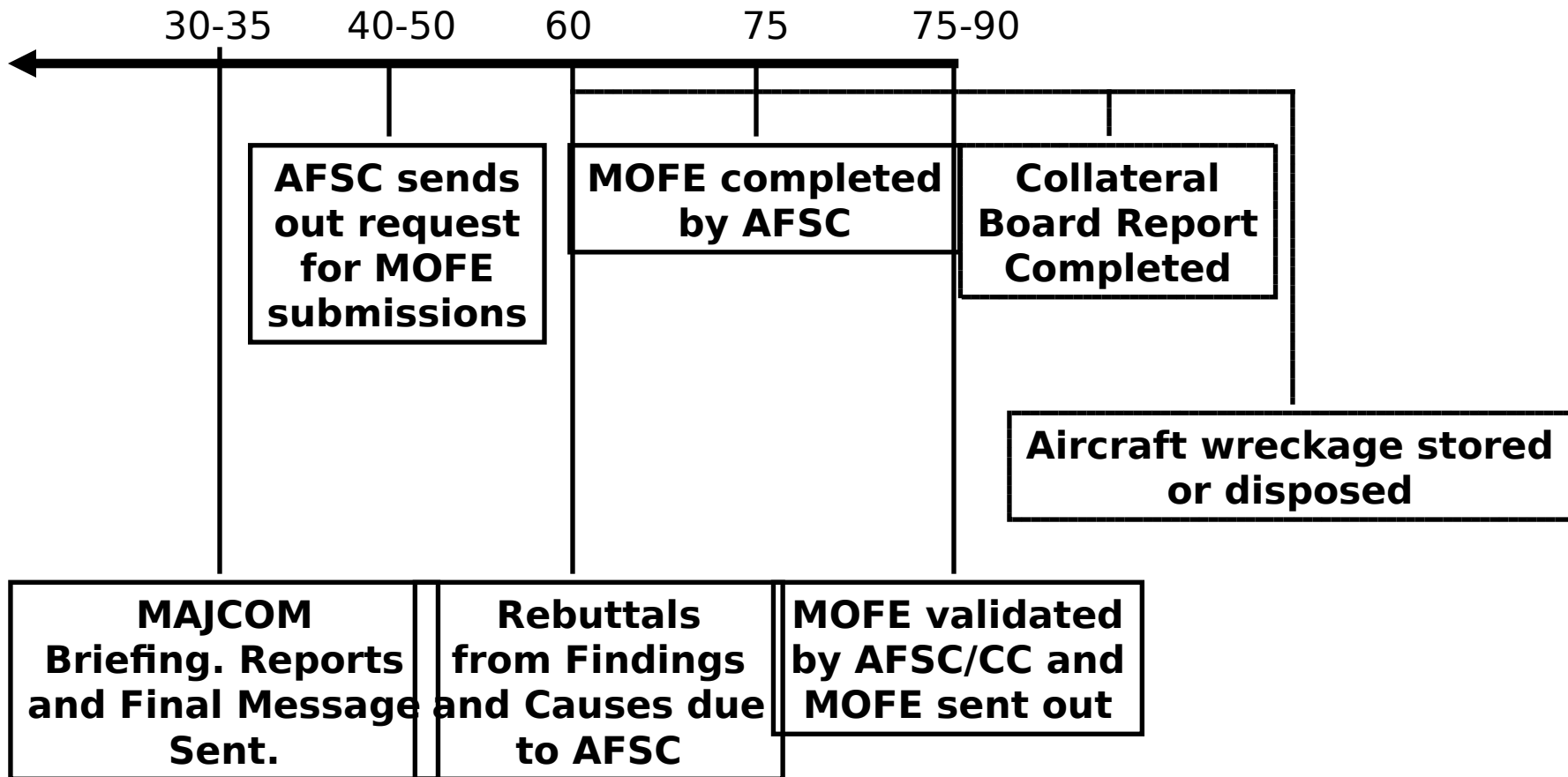


ISB/SIB Timeline





ISB/SIB Timeline





Final Thoughts



- **Be Prepared**
 - **Annual refresher training**

- **Safety Investigations are Very Important**
 - **All Class A's have CSAF Interest**
 - **You Work for the MAJCOM/CC (class As) or NAF/CC (class Bs)**

- ***Ultimate Objective is to Prevent Future Mishaps!!***



It can happen here!





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